“A STUDY TO DEVELOP AND EVALUATE THE EFFECTIVENESS OF A NEED- BASED, INTERVENTIONAL PACKAGE ON AWARENESS AND SELF EFFICIENCY OF PRIMARY CAREGIVERS IN CARE OF CHILDREN DURING PRIMARY IMMUNIZATIONS IN SELECTED HEALTH FACILITIES.”

SYNOPSIS SUBMITTED

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Introduction

Immunization is important for all infants and children. It is an important milestone in the field of health and has the largest reach to children in the community areas. The program initially started as Expanded program on immunization in 1978 and was later changed into Universal Immunization Program in 1985. In 1992 it was merged with CSSM and became a key area under National Rural Health Mission in 2005. Earlier the program had focus on limited vaccine preventable diseases mainly BCG, Polio, DPT hepatitis and measles but in the recent years, with the prevalence of diarrhoeal diseases , acute and chronic pulmonary infections and availability of affordable vaccines newer vaccine have now been recommended for infants and children mainly HiB(hemophilus influenza B, FIPV(fractional IPV), PCV(pneumococcal conjugate vaccine and rotavaq(rotavirus diarrhea).

Global Vaccine Action Plan was adopted by 194 countries to prevents deaths from VPDs. It was then resolved that the signing countries would make efforts to improve surveillance and monitoring of immunization activities and increase international cooperation to this end. Globally and India has a immunization coverage of above 80% for most vaccines. Some newer vaccines have recorded a low coverage of around 40%. Utilization of immunization facilities depends on many factors including communication about benefits of vaccines, their protective effects, knowledge about adverse effects and their management. Government of India provides all essential vaccines for children under

immunization program covering all major diseases affecting a child's health and provides for registration of antenatal mothers with government hospitals their follow up post delivery and then tracking of the baby for the pending vaccines. Immunization coverage for various vaccines however remains low as compared to other countries including Nepal . One of the major factors affecting this may be lack of motivation on the part of parents and families who are unaware of the significance of immunization and their role in preventing illnesses. Studies have shown that people require much more knowledge about vaccines and their function than expected and that communication on the part of health care staff is utmost importance.(1)

Parents views , need for information , vaccine safety , risks and benefits are important and must be assessed in order to have high confidence of parents and improve the overall immunization coverage. In a study by Catherine and Julie , information gaps, concerns and trust are important issues that need to be addressed during immunization appointments. Parents may sometimes have misconceptions about vaccines, their effect on the potency.

Karami et al used a mixed cohort to study the side effects of pentavalent vaccine among 1119 babies at 6, 10 and 14 weeks of age. The mothers reported swelling, redness, fever , irritability as a result of pentavalent vaccination. The study recommends providing information to parents regarding management of adverse reactions to immunizationto be taught to parents.

A study on finding determinants for immunization coverage by Elias and Worku revealed that mother's lack of awareness about immunizationschedule, fear of adverse effects and misinformation about contraindications were main reason for unimmunized

children. involvements of males in immunization was also stated as one of the reason for low rate of immunization.

According to a study done in Israel by C S Zamir and Israeli on timeliness and completeness of vaccination of children upto 4 years identified several factors related to vaccination like high birth order, season of child's birth, socioeconomic status and marital status as risk factors for delayed coverage. It also emphasized that health care professionals must address these issues while caring for these vulnerable groups.

In a yet another study by Mekelo, Geremew and Birhanu done on children aged 12-23 months it was found out that several factors related to primary caregivers played a role in full immunization of children. The factors were primary caregivers knowledge, educational level, place of delivery and maternal utilization of health services. The results of this study were corroborated by Holipah and Kuroda in their study on Indonesian children aged 12-23 months. This study presence of health professional in the family, older age and maternal qualification was correlated with complete immunization.

Some studies have indicated a need for health package for parents to improve health facility utilization and better cooperation from people. It identified several factors affecting the utilization of health facilities by people and recommended provision of an essential health package to increase utilization of facilities by patients and people.

According to Kaufman (Cochrane literature review)face to face interventions like giving culturally appropriate advice, correcting misinformation , addressing the personal questions and fears improves educators ability and increased responsiveness of the parents for vaccination.

In a study done on Gambian children by Odutola et al reasons for delayed vaccination were stated as transportation problem, lack of doctor's appointment, long waiting time and forgetfulness also. Health condition of the mother and child was also found to influence vaccination timeliness.

Form the above mentioned studies several factors affecting a primary caregiver' s decision for vaccination of their children have identified. The studies also give an idea about potential interventions that can be carried out to improve immunization coverage.

Not many studies have focused on the mothers/caregivers ability to manage vaccine related problem at home and feras related to vaccines which are also known to affect immnuzation. Therefore, to improve health facilities and increase immunization coverage it is needed that the primary caregivers's need for information about immunization schedule, vaccine related problems, contraindications and their ability to manage vaccine related problems be enhanced and so the researcher felt the need to develop a health package to address these issues.

Research Objectives

- To explore the existing gaps between awareness and practices of primary caregivers related to vaccine related problems and their management
- To develop and validate need based interventional package for primary caregivers in managing the infant during primary immunizations.
- To assess the effectiveness of need based interventional package in terms of awareness and self-efficiency of primary caregivers in managing the infant during primary immunizations.
- To determine the rate of occurrence of vaccine related problems and their association with the selected variables of the infants.
- To determine immunization compliance.

Operational definitions

- **Need based interventional package-** is a tool consisting of information regarding immunization, schedule, indications, importance , vaccine related problems and methods to manage them
- **Awareness-** is the level of knowledge the primary caregivers possess regarding the immunization.
- **Self -efficiency-** is the ability of primary caregivers to manage vaccine related problems among the child.

- **Primary caregivers -** is a family member, parents or any other significant care provider of the child**.**
- **Primary immunization-** includes the series of vaccines that the infant receives during first year of life.

Hypothesis

H1 - The need based interventional package will bring significant change in the level of awareness of mothers regarding management of child during primary immunizations in the treatment group.

H2- The need based interventional package will significantly increase the self efficiency of mothers in regarding management of infant during primary immunizations in the treatment group.

Methodology

- **Research approach**- Prospective
- **Target population**- primary caregivers of infants undergoing primary immunizations at selected health facilities.
- **Setting**- Immunization room of selected health facilities.
- **Data collection** – shall be in phases.

Phase I. Focus group discussion with the primary caregivers who are have experienced immunization of their children for assessment of their information needs related to immunization and management of children during primary immunization.

Phase II- Development and validation of need based interventional package for primary caregivers in managing infant during primary immunization.

Phase III- Implementation of the need based interventional package on 50 primary caregivers and comparing the outcome with 50 primary caregivers in the control group. The primary caregivers shall be enrolled using random sampling at the first immunization event(0 dose) and based on their intent to continue immunization of the child from the same heath facility. Follow up shall be done at subsequent immunization events (6, 10 14 weeks and 9 months)

- **Tool to be used-** the following tools shall be used.

A. A semi structured tool to be used for need assessment of mothers related to immunization.

B. A tool to record the occurrence of vaccine related problems among infants undergoing primary immunization.

C. A tool to assess awareness of primary caregivers regarding immunization, its schedule, need for immunization, side effects, contraindications, management of infant during primary immunizations.

D. A tool to assess self efficiency of primary caregivers in caring the infant during primary immunization.

Major findings

The study will shed light on the needs of the mothers/primary givers related to information related to the following aspects of immunization.

- Purpose of immunization.
- Various vaccine preventable diseases among children.
- Schedule of immunization.
- Rate of occurrence of various vaccine related problems, their frequency, percentage and the factors affecting the vaccine related problems.
- Awareness of the primary caregivers about vaccine related problems.
- Awareness of the primary caregivers about the management vaccine related problems.
- Difference in the level of self efficiency of the primary caregivers in the management of vaccine related problems in the infants.
- Vaccination compliance among the treatment and control group.

Implications of the study

- The current study will help determine the specific areas that need to be focused upon by the health care professionals while educating them about immunization.
- The need based interventional package developed shall be instrumental in raising awareness about immunization.
- The contents of the need based interventional package can be incorporated into the already implemented maternal and child health card that is provided by the government and will address the vaccine related problems that commonly occur after immunization.

- The contents of the need based interventional package can be used in the private pediatric health care facilities also.

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